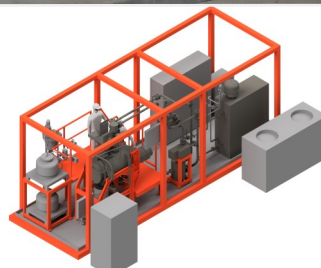


Fact Sheet

Mobile Mercury Conversion Unit



econ industries

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Zero industrial waste ... !

Stabilization of elemental mercury

econ industries Mobile Mercury Conversion Unit

The treatment of mercury wastes is not completed after the recovery of mercury from materials such as spent catalysts, activated carbon, oil sludges, contaminated soils or tailings from chlor-alkali or mining activities. The elemental mercury must be stabilized or converted to assure a safe and final disposal of this hazardous substance. econ industries has engineered a Mobile Mercury Conversion Unit, able to transform elemental mercury (Hg^0), a hazardous substance, into mercury sulfide (HgS), a safe and stable compound.

Since the prohibition of mercury trade and export across countries imposed by the Minamata Convention, several industries are being forced to take action on mercury wastes. One of the major challenges faced by waste management companies, is finding a mobile solution that can be conveniently transported to remote locations for on-site mercury treatment. Transporting the mercury to a waste facility or across countries is not a feasible option due to the high costs and risks associated with the transport.

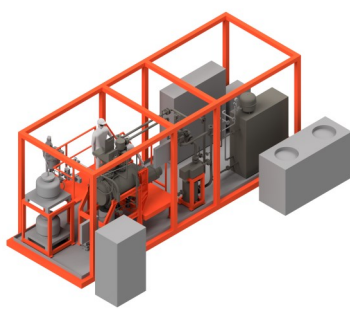
The on-site mercury treatment involves the conversion of elemental mercury (Hg^0) to mercury sulphide (HgS). This exothermic chemical reaction is achieved by mixing sulfur and mercury stoichiometrically inside a hermetic mixer. By working with a inert atmosphere and a liquid phase chemical reaction, the entire MMCU process assures a safe operation. With the completion of the batch, a red powder or HgS compound named Cinnabar is obtained. Finally, the discharge vessel allows the stabilized material to be discharged directly into metal drums as the final process step prior to safe disposal. econ has applied this process for the stabilization of more than 500 tons of mercury from chlor-alkali facilities in Poland and the United Kingdom.

Performance data

■ Mobile Mercury Conversion Unit Type:	MMCU 1 500	MMCU 150
■ Throughput:	1,500 kg Hg/batch	200 kg Hg/batch
■ Plant capacity:	3 - 4 batches per day	
■ Heating system:	Thermal oil unit - heated by electric power	
■ Operating pressure:	Atmospheric pressure	



MMCU 1 500 on-site



MMCU 150 rendering



Input and output materials

Greatest benefits

- The MMCU delivers a stable and non-leaching output material, safe for disposal in salt mines or designated landfills
- Skid mounted units - mobility & flexibility regarding on site conditions
- Local treatment, reducing risks and costs associated with transport of hazardous substances
- Plug-and-play equipment in modular design, pre-tested in our German workshops
- Highest safety based on EU and German standards